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iii) a linker moiety coupling said probe to said ligand.

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5. (Amended) The method of claim 2, wherein said single chain antibody has at least 30% sequence identity to SEQ.ID.No. 1 and is capable of recognizing PhOx.

6. (Amended) The method of claim 2, wherein said single chain antibody is a homologue of SEQ.ID.No. 1 and is capable of recognizing PhOx.

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11. (Amended) The method of claim 3, wherein said detecting comprises locating said fluorescence characteristic of said fluorescent moiety within said cell.

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15. (Amended) The method of claim 3, further comprising the steps of,  
i) adding a stimulus to said cell and  
ii) detecting said probe/ligand conjugate, before and at least one time after addition of said stimulus.

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60. (Amended) A method for localizing a probe, comprising:  
a) contacting a sample comprising a cell expressing a specific binding partner with a probe/ligand conjugate, said probe/ligand conjugate comprising:  
i) a probe moiety,  
ii) a ligand that can bind with said specific binding partner,  
and  
iii) a linker moiety coupling said probe to said ligand, wherein said ligand and said specific binding partner bind non-covalently, wherein said probe/ligand conjugate is membrane permeant, and wherein the specific binding partner is expressed from a recombinant nucleic acid.

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63. (Amended) ~~The method according to claims 60, 61 or 62, wherein the specific binding partner is a single chain antibody.~~

Please add the following claims:

--64. The method of claim 1, wherein the probe provides a more intense signal when the probe/ligand conjugate is bound to the single chain antibody than when it is unbound.

65. The method of claim 2, wherein the probe provides a more intense signal when the probe/ligand conjugate is bound to the single chain antibody than when is unbound.

66. The method of claim 1, wherein the probe is a fluorescent probe that is at least about 5-fold less fluorescent in an unbound versus bound state.

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67. The method of claim 1, wherein the linker is a flexible aliphatic linker or a rigid aromatic linker.

68. The method of claim 60, wherein the probe provides a more intense signal when the probe/ligand conjugate is bound to the single chain antibody than when it is unbound.

69. The method of claim 60, wherein the probe is a fluorescent probe that is at least about 5-fold less fluorescent in an unbound versus bound state.

70. A method for localizing a probe, comprising:

- a) contacting a sample comprising a cell expressing a single chain antibody with a probe/ligand conjugate, said probe/ligand conjugate consisting essentially of:
  - i) a probe moiety,
  - ii) a ligand that can bind with said single chain antibody, and
  - iii) a non-ionic linker moiety coupling said probe to said ligand.

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71. The method of claim 70, wherein said probe/ligand conjugate is membrane permeant.
72. The method of claim 70, wherein the probe provides a more intense signal when the probe/ligand conjugate is bound to the single chain antibody than when it is unbound.
73. The method of claim 70, wherein the probe/linker conjugate consists of elements i), ii), and iii).
74. The method of claim 70, wherein the linker is a flexible aliphatic linker or a rigid aromatic linker.--